

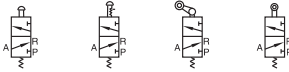
# Control valve(3/2way)



## M3 Series



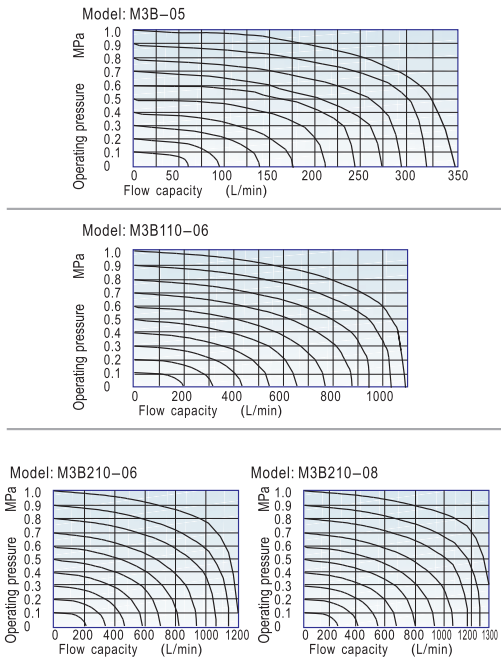
### Symbol



### Product feature

- Exhaust outlet locates over the (body), which is convenient to install muffler to decrease noise and pollution.
- The external force required by direction-change of series of M3B, M3R and M3L is provided by external mechanism, which can be used for position test or [stroke switch] limit switch.
- M3C, M3D, M3Y, M3PF, M3PM, M3PP, M3PL and M3HS are operated manually, owning control joints with several structure forms and suitable for application under different conditions.
- It is in sliding column structure that the control force is not influenced by working pressure (that is, there is no back pressure effect); internal circle is sealed with good tightness and the direction-change is sensitive.
- No need to add oil for lubrication.
- Multi-mounting makes it convenient to install and apply;
- The control joints of series of M3C, M3D, M3Y, M3R, and M3L are made of metal which has long service life and more reliable and steady performance.

### Flow chart



### Specification

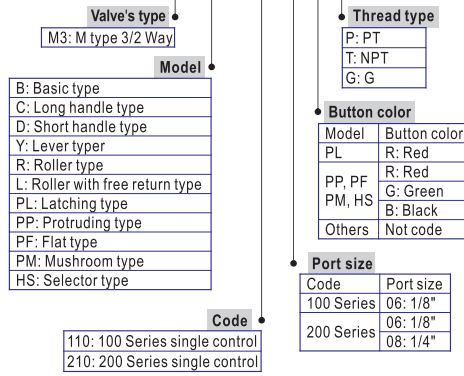
Model	S3B	S3C	S3D	S3R	S3L	S3Y	S3PM	S3PP	S3PF	S3PL	S3HS
Fluid	Air (to be filtered by 40 μm filter element)										
Operating	External control direct acting type										
Port size <sup>①</sup>	05:M5; 06:1/8"; 08:1/4"										
Orifice size	Mini type					05:2.5 mm <sup>2</sup> (Cv=0.14)					
	110					06:8.0 mm <sup>2</sup> (Cv=0.45)					
210						06:9.0 mm <sup>2</sup> (Cv=0.50); 08:12.0 mm <sup>2</sup> (Cv=0.67)					
	Valve type										
3/2 Way											
Lubrication <sup>②</sup>											
Not required											
Pressure range											
0~1.0MPa(0~145psi)											
Proof pressure											
1.5MPa(215psi)											
Temperature											
-20~70 °C											
Material body											
Aluminum alloy											

① PT thread, NPT thread and G thread are available.

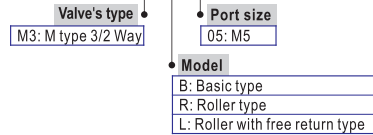
② Once lubricated air is used, continue with same medium to optimise valve life span. It is suggested to use ISO VG32 lubricant or the oil with the same grade.

### Ordering code

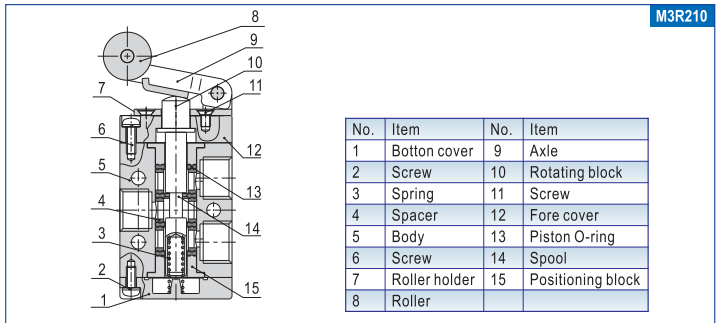
Common type: **M3 PM 210 06 R P**



Mini type: **M3 R 05**



### Inner structure



### Reversal stroke

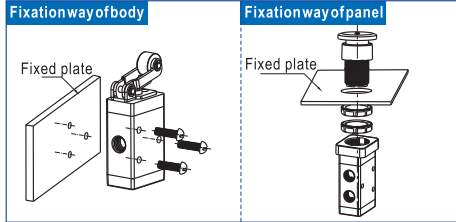
Type	Common type				Mini type			
	Spool stroke	Button stroke	Type	Spool stroke	Roller(handle) stroke	Type	Spool stroke	Roller stroke
M3B	2.0~3.3	-	M3R	2.0~3.0	4.6~6.8	M3B05	2.0~3.3	-
M3PF	2.0~3.3	3.8~5.1	M3L	2.0~3.0	5.0~7.8	M3R05	2.0~3.0	6.0~8.5
M3PP	2.0~3.3	3.8~5.1	M3C	2.0~3.0	11.0~16.0	M3L05	2.0~3.0	7.0~10.0
M3PM	2.0~3.3	3.8~5.1	M3D	2.0~3.0	5.5~8.0			
M3PL	2.0~3.3	5.9~7.2						
M3HS	2.0~3.3	5.1~6.4						

# Control valve(3/2way)



## M3 Series

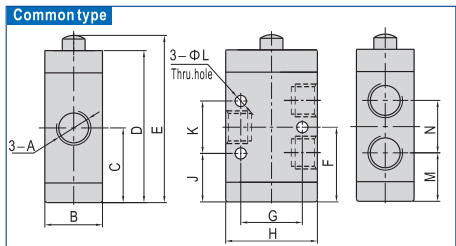
### Assemble chart



#### Attentions

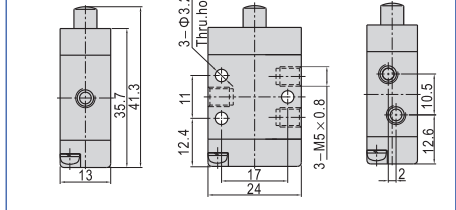
- 1) The control set is made of engineering plastic which only allows manual operation and switching valves through metal impact is forbidden.
- 2) The series of M3B, M3C, M3D, M3PM, M3PF and M3PP get the function of automatic restoration. The hand valves of M3Y, M3HS and M3PL are in the type of manual restoration. M3PL will be restored by turning the revolve button after being pressed into orientation.
- 3) Pay attention to the reversing stroke. The reversing stroke can not surpass its stroke stipulated in stroke control table when the direction-change of the valve is forced by any external forces, otherwise it will cause the damage of the valve.
- 4) The M3L can only switch the valve in single direction (impact from right to left). The impact from the other direction is invalid (from left to right).
- 5) Control joint combination can be ordered individually. Please refer to the table on the right for order details.

### Dimensions



Item	Type	M3B110	M3B210	Item	Type	M3B110	M3B210
A		06:1/8"	06:1/8"	G		18	23.5
B		18	22	H		27	35
C		23.5	28.5	J		15.5	18.5
D		46.5	58	K		16	20
E		52	63.8	L		3.2	4.3
F		23.5	28.5	M		15.5	18.5
				N		16	20

#### Mini type



### Mini control set dimensions

Model	M3R05 Model	M3L05 Model
How to order	Ordering code Type M3R05-P14A M3R05 Roller type control set	Ordering code Type M3L05-P14A M3L05 Roller with free return type control set
Applicable products	M3R05	M3L05
Dimensions		

### Control set dimensions

Model	C Long handle type	D Short handle type	Y Lever type
How to order	Ordering code Type M3C210-P13A M3C210 Long handle type control set	Ordering code Type M3D210-P13A M3D210 Short handle type control set	Ordering code Type M3Y210-P13A M3Y210 Lever type control set
Applicable products	M3C110, M3C210	M3D110, M3D210	M3Y110, M3Y210
Dimensions			

Model	R Roller type	L Roller with free return type
How to order	Ordering code Type M3R210-P14A M3R210 Roller type control set	Ordering code Type M3L210-P14A M3L210 Roller with free return type control set
Applicable products	M3R110, M3R210	M3L110, M3L210
Dimensions		

Model	PP Protruding type	PM Mushroom type	PL Latching type (only red)
How to order	Ordering code Type S3PP05-P11A S3PP protruding type control set (Green) S3PP05-P12A S3PP protruding type control set (Red) S3PP05-P13A S3PP protruding type control set (Black)	Ordering code Type S3PM05-P11A S3PM mushroom type control set (Green) S3PM05-P12A S3PM mushroom type control set (Red) S3PM05-P13A S3PM mushroom type control set (Black)	Ordering code Type S3PL05-P12A S3PL Latching type control set (Red)
Applicable products	M3PP110, M3PP210	M3PM110, M3PM210	M3PL110, M3PL210
Dimensions			

Model	PF Flat type	HS Selector type
How to order	Ordering code Type S3PF05-P11A S3PF flat type control set (Green) S3PF05-P12A S3PF flat type control set (Red) S3PF05-P13A S3PF flat type control set (Black)	Ordering code Type S3HS05-P11A S3HS selector type control set (Green) S3HS05-P12A S3HS selector type control set (Red) S3HS05-P13A S3HS selector type control set (Black)
Applicable products	M3PF110, M3PF210	M3HS110, M3HS210
Dimensions		